AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listing of the claims in this application.

1-36. (Canceled)

37. (Currently amended) A method for forming multicomponent glass particles and spraying the glass particles to a target, the method comprising:

supplying a fuel gas through a nozzle of a spraying device to produce a flame;

introducing oxygen to the flame through the nozzle;

introducing a first glass component to the flame through the nozzle such that the first glass component reacts to form first oxide particles, wherein the first glass component [[is]] consists of a gaseous or vaporous substance;

introducing a second glass component to a vicinity of the flame downstream of the nozzle through the nozzle, wherein the second glass component comprises a liquid solution containing a rare earth metal;

introducing an atomizing gas to the vicinity of the flame downstream of the nozzle through the nozzle;

atomizing the second glass component with the atomizing gas in the vicinity of the flame downstream of the nozzle so as to form second oxide particles; and

wherein the first oxide particles and the second oxide particles combine with each other so as to form multicomponent glass particles comprising the rare earth metal.

38. (Previously presented) The method according to claim 37, wherein said first glass component, said second glass component and said fuel gas are supplied to the flame coaxially.

39. (Previously presented) The method according to claim 38, wherein said first glass component is silicon or germanium tetrachloride and said second glass component is a solution containing erbium nitrate, water or alcohol, and a form of aluminum which is soluble in water or alcohol, such that multicomponent glass particles can be formed to manufacture active fiber.

40. (Previously presented) The method according to claim 37, wherein said first glass component is silicon or germanium tetrachloride and said glass component is a solution containing erbium nitrate, water or alcohol, and a form of aluminum which is soluble in water or alcohol, such that multicomponent glass particles can be formed to manufacture active fiber.

41. (Previously presented) A method according to claim 37, wherein said multicomponent glass particles are homogenous multicomponent particles.

42. (Currently Amended) A method for forming multicomponent glass particles and spraying the glass particles to a target, the method comprising:

supplying a fuel gas through a nozzle of a spraying device to produce a flame;

introducing oxygen to the flame through the nozzle;

introducing a first glass component to the flame through the nozzle such that the first glass component reacts to form first oxide particles, wherein the first glass component [[is]] consists of a gaseous or vaporous substance, ~~the first glass component~~ said gaseous or vaporous substance comprising silicon tetrachloride or germanium tetrachloride;

introducing a second glass component to a vicinity of the flame downstream of the nozzle through the nozzle, wherein the second glass component is a solution containing rare earth ion, water or alcohol, and a form of aluminum which is soluble in water or alcohol;

introducing an atomizing gas to the vicinity of the flame downstream of the nozzle through the nozzle;

atomizing the second glass component with the atomizing gas in the vicinity of the flame downstream of the nozzle so as to form second oxide particles; and

wherein the first oxide particles and the second oxide particles combine with each other so as to form multicomponent glass particles comprising rare earth metal.

43. (Previously presented) The method according to claim 42, wherein said first glass component, said second glass component and said fuel gas are supplied to the flame coaxially.

44. (Currently amended) A method for forming multicomponent glass particles and spraying the glass particles to a target using a spraying device, the spraying device comprising a burner including a plurality of tubes for delivering material to be used in forming the multicomponent glass particles, the method comprising:

supplying a fuel gas through a nozzle of the spraying device to produce a flame, wherein said ~~nozzle is common to said~~ plurality of tubes ~~and is provided at an~~ end ~~of said plurality of tubes~~ at said nozzle;

introducing oxygen to the flame through the nozzle;

introducing a first glass component to the flame through a gas tube ~~among~~ of said plurality of tubes to the nozzle such that the first glass component reacts to form first oxide particles, wherein the first glass component in the tube consists of a gaseous or vaporous substance;

introducing a second glass component to a vicinity of the flame downstream of the nozzle through a liquid tube ~~among~~ of said plurality of tubes to the nozzle, wherein the second glass component consists of a liquid solution containing a rare earth metal;

introducing an atomizing gas to the vicinity of the flame downstream of the nozzle through the nozzle;

atomizing the second glass component with the atomizing gas in the vicinity of the flame downstream of the nozzle so as to form second oxide particles; and

wherein the first oxide particles and the second oxide particles combine with each other so as to form multicomponent glass particles comprising the rare earth metal.

45. (Previously presented) The method according to claim 44, wherein said first glass component is silicon or germanium tetrachloride and said second glass component is a solution containing erbium nitrate, water or alcohol, and a form of aluminum which is soluble in water or alcohol, such that multicomponent glass particles can be formed to manufacture active fiber.

46. (Currently amended) A method for forming multicomponent glass particles and spraying the glass particles to a target, the method comprising:

supplying a fuel gas through a nozzle of a spraying device to produce a flame;

introducing oxygen to the flame through the nozzle;

introducing a first glass component to the flame through the nozzle such that the first glass component reacts to form first oxide particles, wherein the first glass component [[is]] consists of a gaseous or vaporous substance;

introducing a second glass component to a vicinity of the flame downstream of the nozzle through the nozzle, wherein the second glass component comprises a liquid solution containing a rare earth metal; and

atomizing the second glass component with the fuel gas in the vicinity of the flame downstream of the nozzle so as to form second oxide particles;

wherein the first oxide particles and the second oxide particles combine with each other so as to form multicomponent glass particles comprising the rare earth metal.

47. (Previously presented) The method according to claim 46, wherein said first glass component, said second glass component and said fuel gas are supplied to the flame coaxially.

48. (Previously presented) The method according to claim 47, wherein said first glass component is silicon or germanium tetrachloride and said glass component is a solution containing erbium nitrate, water or alcohol, and a form of aluminum which is soluble in water or alcohol, such that multicomponent glass particles can be formed to manufacture active fiber.

49. (Previously presented) The method according to claim 47, wherein said first glass component is silicon or germanium tetrachloride and said second glass component is a solution containing erbium nitrate, water or alcohol, and a form of aluminum which is soluble in water or alcohol, such that multicomponent glass particles can be formed to manufacture active fiber.

50. (Previously presented) The method according to claim 46, wherein said multicomponent glass particles are homogenous multicomponent particles.

51. (Currently amended) A method for forming multicomponent glass particles and spraying the particles to a target by a spraying device comprising a nozzle and a burner which comprises a liquid tube, a first gas tube, a second gas tube and a third gas tube, wherein the liquid tube, the first gas tube, the second gas tube and the third gas tube end at ~~a common~~ said nozzle, the liquid tube and the first gas tube being arranged in such a manner that the first gas tube surrounds the liquid tube, the method comprising:

supplying fuel gas through the first gas tube to the nozzle to produce a flame;

introducing oxygen to the flame through the third gas tube to the nozzle;

introducing a first glass component in a solely gaseous or vaporous form to the flame through the second gas tube such that the first glass component reacts to form first oxide particles, the first glass component comprising silicon tetrachloride or germanium tetrachloride;

introducing a second glass component to a vicinity of the flame downstream of the nozzle through the liquid tube, wherein the second glass component comprises a liquid solution containing a rare earth metal;

atomizing the second glass component with the fuel gas in the vicinity of the flame downstream of the nozzle so as to form second oxide particles; and

wherein the first oxide particles and the second oxide particles combine with each other so as to form multicomponent glass particles comprising the rare earth metal.

52. (Previously presented) The method according to claim 51, wherein said second glass component is a solution containing erbium nitrate, water or alcohol, and a form of aluminum which is soluble in water or alcohol, such that multicomponent glass particles can be formed to manufacture active fiber.